Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

WHAT IS CLAIMED IS:

1. (currently amended) A computer-based method for determining a value of a customized indexed call option, comprising:

a) selecting, using a processor in at least one specially programmed computer, a range from the group consisting of a range between a first lattice node with an index value no greater than an index value for said customized indexed call option and a second lattice node with an index value at least equal to said index value for said customized indexed call option, and a range between a first epoch with a time no greater than a time to expiry for said customized indexed call option and a second epoch with a time at least equal to said time to expiry, wherein the first lattice node, the second lattice node, the first epoch, and the second epoch are stored in a memory element for the at least one computer;

b) searching, using the processor, a lattice data structure, stored in the memory element, ~~based on said range from the group~~ by applying said range from said group to said lattice data structure to ~~determine~~ identify at least one value in the lattice data structure included in said range, the at least one value comprising at least one intermediate value of said customized indexed call option;

c) interpolating, using the processor, in said at least one intermediate value of said customized indexed call option based on a set of predetermined parameters of the customized indexed call option, stored in the memory element, to find said value; and,

d) presenting, on a graphical user interface for the at least one computer, an option for a holder of the customized indexed call option to switch between said index and said constant growth rate at predefined intervals during a term for said customized indexed call option,

wherein said customized indexed call option comprises a term and an index linkage to an index and a constant growth rate.

2. (original) A computer-based method for determining a value of a customized indexed call option as recited in claim 1 wherein said search criterion comprises a set of predetermined parameters of the customized indexed call option.

3. (original) A computer-based method for determining a value of a customized indexed call option as recited in claim 1 wherein said data structure is initialized based on a second predetermined set of parameters.

4. (original) An article of manufacture comprising a customized indexed call option with a specified term and specified notional amount n operatively arranged to allow an investor to choose notional amounts $n0$ and $n1$ at specified intervals within the term such that $n0>=0$, $n1>=0$, and $n0+n1 \leq n$, while guaranteeing nonnegative total credited interest over the term, where interest credited on the notional amount $n0$ is based upon an arbitrary but specified nonzero interest rate, and interest on the notional amount $n1$ is credited based on changes in a specified index.

5. (original) An article of manufacture comprising a customized indexed call option with a specified term and specified notional amount n operatively arranged to allow an investor to choose notional amounts n_i at specified intervals within the term such that i is an integer such that $0 \leq i \leq k$, $n_i \geq 0$, and $\Sigma n_i \leq n$, while guaranteeing nonnegative total credited interest over the term, where interest credited on the notional amount n_0 is based upon an arbitrary but specified nonzero interest rate, and interest on the notional amount n_i, $i \geq 1$, is credited based on changes in specified index i, where k, the number of specified indices, is an integer greater than or equal to one.

6. (currently amended) A computer-based method for determining a value of a customized indexed annuity with guaranteed return amount G, comprising:

a) determining, using a processor in at least one specially programmed computer, a value of a customized indexed call option;

b) determining, using the processor, a present value of the guaranteed return amount G; and,

c) presenting, on a graphical user interface for the at least one computer, an option for a holder of the customized indexed call option to switch between said index and said constant growth rate at predefined intervals during a term for said customized indexed call option, wherein said customized indexed call option comprises a term and an index linkage to an index and a constant growth rate.

7. (currently amended) A computer-based method for determining a value of a customized indexed certificate of deposit with guaranteed return amount G, comprising:

a) determining, using a processor in at least one specially programmed computer, a value of a customized indexed call option;

b) determining, using the processor, a present value of the guaranteed return amount G; and,

c) presenting, on a graphical user interface for the at least one computer, an option for a holder of the customized indexed call option to switch between said index and said constant growth rate at predefined intervals during a term for said customized indexed call option, wherein said customized indexed call option comprises a term and an index linkage to an index and a constant growth rate.

8. (currently amended) A computer-based method for determining a value of a customized indexed life insurance policy with guaranteed return amount G, comprising:

a) determining, using a processor in at least one specially programmed computer, a value of a customized indexed call option;

b) determining, using the processor, a present value of the guaranteed return amount G; and,

c) presenting, on a graphical user interface for the at least one computer, an option for a holder of the customized indexed call option to switch between said index and said constant growth rate at predefined intervals during a term for said customized indexed call option, wherein said customized indexed call option comprises a term and an index linkage to an index and a constant growth rate.

9. (currently amended) A computer-based method for determining a value of a customized indexed bond with guaranteed return amount G, comprising:

a) determining, using a processor in at least one specially programmed computer, a value of a customized indexed call option;

b) determining, using the processor, a present value of the guaranteed return amount G; and,

c) presenting, on a graphical user interface for the at least one computer, an option for a holder of the customized indexed call option to switch between said index and said constant growth rate at predefined intervals during a term for said customized indexed call option, wherein said customized indexed call option comprises a term and an index linkage to an index and a constant growth rate.

10. (currently amended) A computer-based method for determining a value of a customized indexed call option, comprising:

a) generating, using a processor in at least one specially programmed computer, a first sample of index paths based on a first set of predetermined parameters;

b) determining, using the processor, an optimal choice boundary maximizing an intermediate value of said customized indexed call option for such first sample of index paths;

c) determining, using the processor, said value of said customized indexed call option from said determined optimal choice boundary and a second sample of index paths and a second set of predetermined parameters; and,

d) presenting, on a graphical user interface for the at least one computer, an option for a holder of the customized indexed call option to switch between said index and said constant growth rate at predefined intervals during a term for said customized indexed call option, wherein said customized indexed call option comprises a term and an index linkage to an index and a constant growth rate.

11. (original) A computer-based method for determining a value of a customized indexed call option as recited in claim 10 wherein said samples of index paths are randomly generated from distributions specified by the first set of predetermined parameters.

12. (original) A computer-based method for determining a value of a customized indexed call option as recited in claim 10 wherein said samples of index paths are quasi-randomly generated from distributions specified by the first set of predetermined parameters.

13. (original) A computer-based method for determining a value of a customized indexed call option as recited in claim 10 wherein said first sample of index paths and said second sample of index paths are identical.

14. (original) A computer-based method for determining a value of a customized indexed call option as recited in claim 10 wherein said first sample of index paths and said second sample of index paths differ.

15. (original) A computer-based method for determining a value of a customized indexed call option as recited in claim 10 wherein said samples of index paths are generated for one index.

16. (original) A computer-based method for determining a value of a customized indexed call option as recited in claim 10 wherein said samples of index paths are generated for multiple indices.

17. (currently amended) An apparatus for determining a value of a customized indexed call option, comprising:

a) means for selecting a range, the means for selecting including a processor in at least one specially programmed computer, from the group consisting of a range between a first lattice node with an index value no greater than an index value for said customized indexed call option and a second lattice node with an index value at least equal to said index value for said customized indexed call option, and a range between a first epoch with a time no greater than a time to expiry for said customized indexed call option and a second epoch with a time at least equal to said time to expiry wherein the first lattice node, the second lattice node, the first epoch, and the second epoch are stored in a memory element for the at least one computer;

b) means for searching, the means for searching including the processor, a lattice data structure, stored in the memory element, ~~based on said range from the group~~ by applying said range from said group to said lattice data structure to ~~determine~~ identify at least one value in the lattice data structure included in said range, the at least one value comprising at least one intermediate value of said customized indexed call option;

c) means for interpolating, the means for interpolating including the processor, in said at least one intermediate value of said customized indexed call option based on a set of predetermined parameters of the customized indexed call option to find said value; and,

d) means for presenting, on a graphical user interface for the at least one computer, an option for a holder of the customized indexed call option to switch between said index and said constant growth rate at predefined intervals during a term for said customized indexed call option, wherein said customized indexed call option comprises a term and an index linkage to an index and a constant growth rate.

18. (original) The apparatus recited in Claim 17 wherein said means for searching a data structure comprises a general purpose computer specially programmed to search said data structure based on said search criterion to determine at least one intermediate value of said customized indexed call option.

19. (original) The apparatus recited in Claim 17 wherein said means for interpolating in said at least one intermediate value of said customized indexed call option comprises a general purpose computer specially programmed to perform said interpolation.

20. (currently amended) An apparatus for determining a value of a customized indexed call option, comprising:

a) means for generating, the means for generating including a processor in at least one specially programmed computer, a first sample of index paths based on a first set of predetermined parameters;

b) means for determining an optimal choice boundary maximizing an intermediate value of said customized indexed call option for such first sample of index paths, the means for determining an optimal choice boundary including the processor;

c) means for determining said value of said customized indexed call option from said determined optimal choice boundary and a second sample of index paths and a second set of

predetermined parameters, the means for determining said value including the processor; and,

d) means for presenting, on a graphical user interface for the at least one computer, an option for a holder of the customized indexed call option to switch between said index and said constant growth rate at predefined intervals during a term for said customized indexed call option, wherein said customized indexed call option comprises a term and an index linkage to an index and a constant growth rate.

21. (original) The apparatus recited in Claim 20 wherein said means for generating a first sample of index paths based on a first set of predetermined parameters comprises a general purpose computer specially programmed to generate said first sample of index paths.

22. (original) The apparatus recited in Claim 20 wherein said means for determining an optimal choice boundary maximizing an intermediate value of said customized indexed call option for such first sample of index paths comprises a specially programmed general purpose computer.

23. (original) The apparatus recited in Claim 20 wherein said means for determining said value of said customized indexed call option from said determined optimal choice boundary and a second sample of index paths and a second set of predetermined parameters comprises a specially programmed general purpose computer.